# *Protecting the World's Largest Telescope*

Green Bank Observatory

The Green Bank Observatory is located in Green Bank, West Virginia and is home to the world's largest fully steerable radio telescope. The area is an ideal location for the telescope because mountains surrounding the satellite act as a natural funnel, pushing radio signals towards the large dish. The observatory's purpose is to act as surveillance for a potential meteor collision, to measure the distance between stars, and search for intelligent life forms in the universe. The expansive facility has a very outdated and unreliable fire protection system, often unable to function for extended periods of time. Brewer Fire, located in nearby Charleston, West Virginia is beginning the long process of updating the entire system to Potter equipment.

## Implementation

The current system employs an all analog style 4 network configuration that uses star topology. Copper wiring travels from the main hub located in the operator room of the Jansky Lab Building to different points throughout the compound. Currently, most of the points are comprised of a variety of outdated fire panels. Two of those panels, located in the Jansky Lab Building and the Bunkhouse, have already been replaced by Potter IPA-4000 fire panels. Eventually Brewer Fire will replace all of the panels with Potter fire panels, as they are equipped to handle fiber communication, to which the entire system will be updated as the project continues.

By updating the system with fiber communication, Mark Moriarty, Casey Harbour, and the rest of the team at Brewer Fire look to solve a large problem facing the Green Bank Conservatory, intermittent ghosting. Often, the signals from the main hub are interrupted due to the delicate and inconsistent nature of copper wiring. "As water fills manholes located around the facility, the exposed copper wiring is submerged, interrupting the signal and rendering the entire network useless for long stretches of time. In the upcoming years, we'll be using Potter equipment to update the entire facility to fiber communication, and completely solve this issue," said Moriarty.


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## Daily Operation

These efforts are part of an ongoing plan to update the sprawling facility. Over the next 5-10 years, Brewer Fire will continue to replace the copper wire dependant equipment with Potter fire panels and ancillary equipment that support fiber connections. This will fix any issue with intermittent ghosting, and provide the Green Bank Observatory with an updated, dependable system. With a new renovated system, The Green Bank Observatory can continue its mission of exploration and protection with a new level of safety.

## *Product Highlights*

### IPA-4000

The IPA-4000 is an expandable analog/ addressable releasing fire alarm system with a total system capacity of 4,064 points.

### Brewer & Co. of WV

*3601 7th Avenue*
*Charleston, WV 25387*
*304-744-5314*

Brewer & Company currently provides fire protection services to WV and all surrounding states. Services provided include fire suppression systems, fire alarm systems, maintenance, testing and repair.

### Potter Electric Signal Co.

*5757 Phantom Dr.*
*St. Louis, MO 63042*
*800-325-3936*

As an independent fire systems company with a focus on tailored customer service, Potter earns its customer's business with superior innovation and continued dedication to life safety.

POTTER
*The Symbol of Protection*